

Remarks

I. Status of claims

Claims 1-25 were pending.

Claim 5 has been rewritten in independent form.

Claim 10 has been canceled without prejudice.

Claims 26-29 have been added

II. Claim rejections

The Examiner has rejected claims 1-25 under 35 U.S.C § 102(e) over Turek (U.S. 6,460,070).

A. Independent claim 1

Independent claim 1 has been amended and now recites:

1. A system for managing a plurality of distributed nodes of a network, comprising:

a network management module that proactively launches migratory recovery modules into the network to detect failed ones of the network nodes;

wherein each of the recovery modules is configured to migrate from one network node to another, determine a respective status of each of the network nodes to which it has migrated, and initiate a recovery process on failed ones of the network nodes.

Turek's system does not proactively launch migratory recovery modules into a network to detect failed ones of the network nodes. Instead of acting in anticipation of future problems, needs or changes, Turek's system only reacts to reports of existing problems, needs, or changes. In particular, in accordance with Turek's disclosure, the mobile software agents are deployed by the dispatch mechanism 15 only in response to either a report of a "network 'fault', alarm or other such trigger" (col. 7, lines 3-4) or a "request for maintenance in some non-specified area of the network" (col. 7, line 7).

For at least this reason, the Examiner's rejection of independent claim 1 under 35 U.S.C. § 102(e) over Turek now should be withdrawn.

B. Claims 2-4, 6-9, and 21-25

Each of claims 2-4, 6-9, and 21-25 incorporates the features of independent claim 1 and therefore is patentable over Turek for at least the same reasons explained above.

C. Independent claim 5

In support of his rejection of claim 5, the Examiner has stated that "Turek disclosed the system of claim 1, wherein the recovery module is configured to determine the status of a network node in accordance with a heartbeat messaging protocol (col. 1, lines 65-67 & col. 2, lines 1-46)." The cited portions of Turek's disclosure, however, do not support the Examiner's statement. Col. 1, lines 65-67 merely teaches that "It is a primary object of this invention to automatically diagnose faults or other events that occur in a large distributed computer network." This disclosure does not teach anything about how the mobile software agent determines a status of a network node. In pertinent part, col. 2, lines 1-46, merely discloses that a particular software agent is selected and deployed into the network to diagnose and, if possible, correct a particular fault. Nowhere does this disclosure teach anything about how the mobile software agent determines a status of a network node.

In fact, there is no part of Turek's disclosure that teaches that the software agents use a heartbeat messaging protocol to determine the status of a network node. Indeed, Turek's software agents are deployed only after an event, such as a network fault, has occurred (see, e.g., col. 2, lines 35-37). Therefore, there is no need for the software agents to use a heartbeat messaging protocol to detect node failures. Instead, each software agent need only be tailored to specifically identify the particular network fault that triggered the deployment of the software agent by the dispatch mechanism 15 (see, e.g., col. 5, lines 31-60 and col. 6, lines 23-59).

For at least these reasons, the Examiner's rejection of claim 5 under 35 U.S.C. § 102(e) over Turek should be withdrawn.

D. Independent claim 11

Independent claim 11 has been amended and now recites:

11. A method for managing a plurality of distributed nodes of a network, comprising:

(a) on a current one of the network nodes, determining a status of the current network node;

(b) in response to a determination that the current network has failed, initiating a recovery process on the current network node;

(c) after initiating the recovery process, migrating from the current network node to a successive one of the network nodes; and

(d) repeating (a), (b), and (c) with the current network node corresponding to the successive network node for each of the nodes in the network.

In accordance with Turk's teachings, the mobile software agents do not migrate from a current network node to a successive one of the network nodes after initiating a recovery process on the current network node. Instead, after initiating a recovery process, Turek's mobile software agents simply terminate after reporting the problem and the corrective action that was taken to the dispatch mechanism 15 (see col. 8, lines 6-9; FIG. 4). Indeed, in accordance with Turek's teachings, each of the mobile software agents is deployed to diagnose and, if possible correct, only one particular network fault. Therefore, there is no need whatsoever for any of Turek's software agents to migrate from the node that contains the particular network fault that the software agent was deployed to diagnose and correct.

For at least these reasons, the Examiner's rejection of independent claim 11 under 35 U.S.C. § 102(e) over Turek now should be withdrawn.

E. Claims 12-19

Each of claims 12-19 incorporates the features of independent claim 11 and therefore is patentable over Turek for at least the same reasons explained above.

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F. Independent claim 20

Claim 20 has been amended and now recites that the computer program comprises computer-readable instructions for causing a computer to perform operations comprising:

migrating the computer program from one network node to a series of successive network nodes;

determining a status of a current one of the network nodes to which the computer program has migrated;

in response to a determination that the current network has failed, initiating a recovery process on the current network node; and

after initiating the recovery process on the current network node, migrating from the current network node to a successive one of the network nodes.

Claim 20 is patentable over Turk for at least the same reasons explained above in connection with independent claim 11. Accordingly, the Examiner's rejection of independent claim 20 under 35 U.S.C. § 102(e) over Turk now should be withdrawn.

III. Conclusion

For the reasons explained above, all of the pending claims are now in condition for allowance and should be allowed.

Charge any excess fees or apply any credits to Deposit Account No. 08-2025.

Respectfully submitted,

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